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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,374	01/08/2002	Louis B. Rosenberg	IMM1P007D.US	7355

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EXAMINER

OSORIO, RICARDO

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,374

Applicant(s)

ROSENBERG ET AL.

Examiner

RICARDO L OSORIO

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 55-81 are rejected under 35 U.S.C. 102(e) as being anticipated by Massie et al (5,587,937).

Regarding claims 55, 56, 58, 60, 61, 55, 56, and 79-81, Massie et al. teaches of an apparatus comprising a mechanical linkage (col. 20, lines 45-53) having a first end and a second end, the first end of the mechanical linkage being coupled to a stylus (Fig. 6, reference character 602), the second end of the mechanical linkage being coupled to a support base (Fig. 1, reference character 116), the mechanical linkage including a plurality of joints configured to allow the stylus to be manipulable in a plurality of degrees of freedom (col. 20, lines 32-42); a plurality of sensors coupled to the plurality of joints of the mechanical linkage (col. 27, lines 4-15 and 28-35, and col. 28, lines 59-68), the plurality of sensors operative to provide a locative signal associated with a position and an orientation of the stylus (col. 10, line 44-col. 11, line 11); the locative signal is configured to enable a display of an image in a graphical environment including a cursor, the image is correlated with the position and the orientation of the user-manipulable object (col. 23, lines 26-33); and a force generator coupled to the mechanical linkage, the force generator configured to output a feedback force responsive to the position and orientation of the stylus (col. 23, lines 33-53).

Art Unit: 2673

Regarding claims 57, 63 and 76, Massie teaches of the stylus being adapted for at least hand or foot use (col. 28, lines 59-68).

Regarding claims 59 and 62, Massie further teaches of the force feedback being used to effect a motion of the user-manipulable object in the at least one of the plurality of degree of freedom (col. 23, lines 33-52).

Regarding claims 64-66, Massie further teaches of the mechanical linkage including a plurality of joints, including linear and rotary joints (col. 8, line 56-col. 9, line10, and col. 13, lines 22-31), at least one joint from the plurality of joints coupled to a support base (col. 9, line 48-col. 10, line 17).

Regarding claims 67, 68, 77 and 78, Massie further teaches of the feedback force, including resistive force including springs (col. 23, lines40-52 and col. 29, lines 52-54), operating to effect motion of the user-manipulable object associated with at least one joint from the plurality of joints (col. 24, lines 1-5).

Regarding claims 73-74, Massie further teaches an auxiliary sensor (Fig. 7, reference character 706) coupled to the stylus, including at least one of an ultrasonic sensor, optical sensor, and a magnetic sensor (Fig. col. 27, lines 28-35, col. 21, lines 13-16, and col. 29, line 2) .

Regarding claims 69 and 71, Massie further teaches of a processor in communication with the sensors and the force generator, the processor operable to receive the locative signal from the plurality of sensors and output a control signal to the force generator, the force generator configured to output the feedback force in response to the control signal (col. 23, lines 10-11, col. 27, lines 7-32).

Art Unit: 2673

Regarding claim 72, Massie further teaches that the processor is operable to send an image signal configured to enable an image being displayed in a graphical environment, the image correlated with the position and orientation of the stylus (col. 23, lines 26-32).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is 703 305-2248. The examiner can normally be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala whose telephone number is 703 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

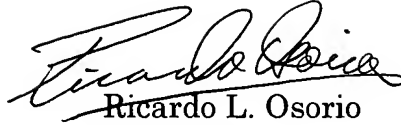
703 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/043,374
Art Unit: 2673

Page 5

A handwritten signature in black ink, appearing to read "Ricardo L. Osorio", written over a horizontal line.

Ricardo L. Osorio
Examiner
Art Unit: 2673

RLO
September 29, 2004